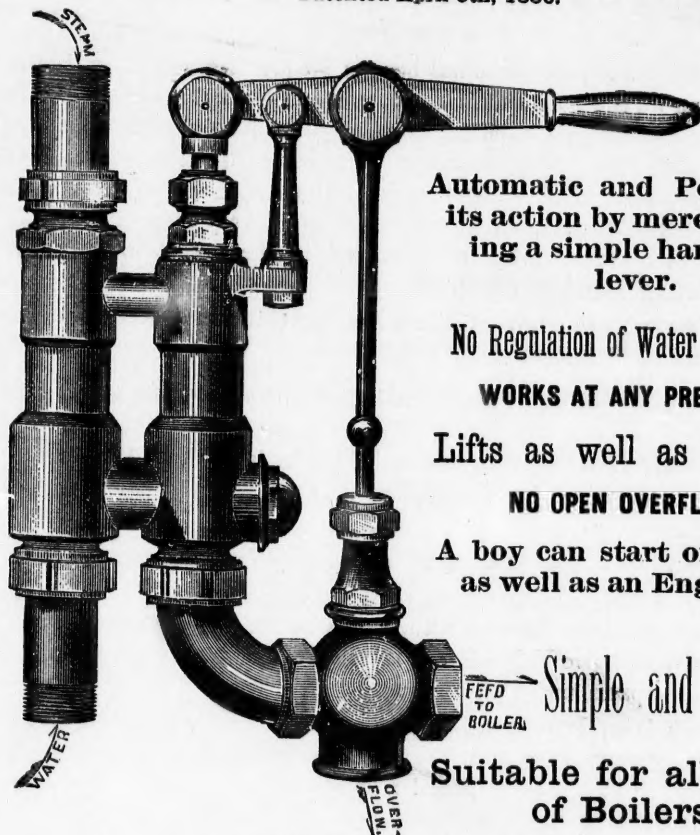


If your Engine Builder does not keep this **BOILER FEEDER**, Send direct to us and we will fill your order Satisfactorily.

THE IMPROVED Boiler Feeder.

With McAvity's Patent Improvement.

Patented April 5th, 1886.



Automatic and Positive in its action by merely moving a simple handle or lever.

No Regulation of Water or Steam.

WORKS AT ANY PRESSURE.

Lifts as well as a Pump.

NO OPEN OVERFLOW.

A boy can start or stop it as well as an Engineer.

Simple and Effective.

Suitable for all Kinds of Boilers.

TO START THE BOILER FEEDER :

- 1st. Raise the handle or Lever to open overflow.
- 2nd. Open Globe Valve in steam pipe to give it steam.
- 3rd. When water flows through overflow close the overflow by pressing down the Lever, and the Boiler Feeder is at work.

MANUFACTURED AND FOR SALE BY

T. McAVITY & SONS,

OFFICE, 13 KING STREET, }
FACTORY, WATER STREET, }

ST. JOHN, N. B.

copy

McAVITY'S PATENT IMPROVEMENT

AS APPLIED TO THE

Improved Boiler Feeder.

For some time past there has been a steady demand for a Boiler Feeder having all the good qualities of the Hancock, but dispensing with the number of valves and handles, which require a considerable amount of attention and make it impossible for any but a practical engineer to use it with success. After careful study and attention we now introduce our PATENT IMPROVEMENT, which will be found in every respect to supply the want and leave nothing to be desired in the way of a **perfect, easy-working Boiler Feeder.**

The following are a few of the advantages it now has over other Boiler Feeders in the market:

1.—It can be **started by two simple movements with the one lever.**

2.—The overflow valve is controlled by a lever and is perfectly positive, preventing a drip; consequently there is **no slop around the boiler.**

3.—It can be started or stopped by a person totally ignorant of engineering.

4.—The same rules for operating apply to all classes of boilers.

5.—The Automatic Valve is so simple as to be readily taken out for regrinding or repairs, under all circumstances.

6.—There is an Improved Strainer which prevents gravel or other substance, large enough to interfere with the working, passing into the Boiler Feeder. (This is an especial advantage, as it obviates the often inconvenient and sometimes serious delay in taking a Boiler Feeder off a Boiler to ascertain the trouble, which is afterwards found to be caused by a small stone passing in with the water.)

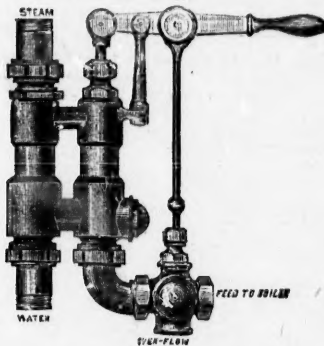
7.—The water supply has not to be regulated, and the Feeder works at any pressure.

8.—It is **adapted for all kinds of boilers** and is especially suited to those for whose working, skilled help is not employed.

Each Boiler Feeder is **thoroughly tested and proved** to be in working order before it leaves the works, and is

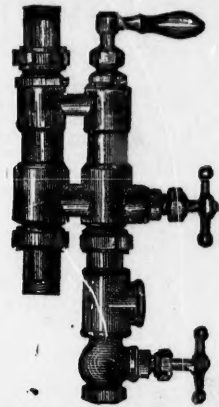
WARRANTED TO GIVE PERFECT SATISFACTION.

NEW STYLE.



**WITH McAVITY'S PATENT
IMPROVEMENT.**

OLD STYLE.



WITHOUT THE IMPROVEMENT.

These Boiler Feeders differ materially in construction and operation from other Boiler Feeders, being adapted to nearly all uses for which pumps are used. They can be used to greater advantage than either Pump or Injector, being very economical on account of the great range of their duties and the small expenditure of steam.

They are constructed in two parts, as shown, one side being designed for lifting and delivering, and the other for forcing against pressures. The lifting side only need be used to raise water to a moderate height, and for extreme height the forcing side. All this is done at a less expenditure of steam than is required for any other Boiler Feeder in the market.

TO ASCERTAIN THE SIZE REQUIRED: When the consumption of fuel is known, the pounds of coal consumed per hour will be the gallons evaporated per hour. When the grate-surface is known and the draft is natural, multiply the grate-surface in square feet by 9; and when the draft is forced add 50 per cent. for the gallons evaporated per hour. All sizes will lift water 25 feet, working as well on a 25 feet lift as on a level.

EACH BOILER FEEDER CAREFULLY TESTED AND PROVED BEFORE LEAVING THE FACTORY.

Price List of the Improved Boiler Feeder with McAvity's Patent Improvement.

Number.	Suction and Feed.	Steam.	Galls. per hour 60 lbs. pressure.	Suitable for Horse Power.	Price.
7½	¾	¾	60	2 to 3	\$18 00
8½	1	¾	90	5 " 12	20 00
10	1¼	¾	120	10 " 20	24 00
12½	1½	¾	220	15 " 30	30 00
15	1¾	¾	300	20 " 40	35 00
17½	2	¾	360	30 " 60	45 00
20	2¼	¾	540	40 " 80	50 00
22½	2½	1	720	50 " 100	55 00
25	2¾	1	900	70 " 120	60 00
30	3	1½	1260	110 " 160	75 00
35	3½	1¾	1740	150 " 225	90 00
40	4	2	2230	220 " 300	110 00
45	4½	2½	2820	300 " 400	125 00

THE IMPROVED BOILER FEEDER.

Every Boiler Feeder is practically tested on our Boiler before it is sent from the factory, and if properly connected fully in accordance with our directions it will not fail to work. To support this statement we offer **TO PAY THE EXPENSES** of any man to our Factory, and to pay him **\$5.00 PER DAY WHILE HERE**, if the Boiler Feeder does not work, provided of course, it has not been misused or improperly connected.

TO ADJUST.

- Connect feed pipe to boiler with orifice marked feed to boiler.
- Connect Boiler Feeder with well or tank from orifice marked water.
- Connect steam pipe from boiler with orifice marked steam.
- Place a Globe Valve in steam pipe just above Boiler Feeder for a starting valve.
- Place a Check Valve in feed pipe between Boiler Feeder and boiler, and a Stop Cock between check valve and boiler.
- In taking water from tank or water works place a Globe Valve between Boiler Feeder and same to regulate supply of water to Boiler Feeder.
- For a high lift or a long draught make suction one size larger than connections. Care should be taken to have connections between Boiler Feeder and well or tank absolutely air-tight.

Steam should be taken from the highest point in boiler and positively from no pipe furnishing steam for other purposes.

Before connecting with steam pipe, blow pipe out thoroughly so as to remove all foreign substances.

Do not attempt to take water at a higher temperature than 120 degrees Fah. for low lift, or higher than 100 degrees Fah. for a high lift. For a lift of 5 feet, about 10 lbs. steam pressure is required; for 10 feet lift, about 15 lbs. steam; for 15 feet, 20 lbs.; for 20 feet, 25 lbs.; for 25 feet, 35 lbs. Every machine is carefully tested before leaving the factory, and is warranted to work satisfactorily if the directions for connecting are strictly followed.

Where more than 15 feet of Suction Pipe is required, the pipe used should be a size larger than that used with the Boiler Feeder ordinarily, but in no case should it be smaller.

TO START THE NEW STYLE.

- 1st. Raise the Handle or Lever to open overflow.
- 2nd. Open Globe Valve in steam pipe to give it steam.
- 3rd. When water flows through overflow close the overflow by pressing down the Lever, and the Boiler Feeder is at work.

TO START THE OLD STYLE.

See that the overflow valves marked 1 and 3 are open and 2 is closed.

Open supply valve and wait till water comes from overflow valve 3; let flow for a second or two then close No. 1; open No. 2 one quarter of a turn; close No. 3 slowly. Give steam. After getting the water, close No. 1; open No. 2 one quarter of a turn; close No. 3 and the Boiler Feeder is at work. No adjustment is necessary for varying steam pressures, but the amount of water delivered can be varied by increasing or reducing the steam or water supply. The conditions in different places vary so widely that we cannot give any absolute rule for operating; but a competent engineer will soon learn how to regulate his steam and water supply to produce the best results in his case.